

CLAIMS

I claim:

1. A navigation system comprising, in combination:

a processor;

a port for receiving a data storage medium, the data storage medium having an identification code and holding a set of information, the set of information comprising (i) an authorization key and (ii) data; and

a first routine executable by the processor for retrieving verification information from the authorization key.

2. The navigation system of claim 1 wherein said first routine uses the verification information to determine whether the data storage medium is authorized to hold the data.

3. The navigation system of claim 2, wherein said first routine compares the verification information to the identification code of the data storage medium.

4. The navigation system of claim 1, wherein the data comprises geographic data.

5. The navigation system of claim 4, further comprising:

a GPS receiver for receiving location coordinates;

means for presenting map information; and

a second routine executable by the processor for using the geographic data to convert the location coordinates into map information and for causing to the map information to be presented via the means for presenting.

1 6. The navigation system of claim 5, wherein the second routine is executable by the
2 processor for using the geographic data to convert the location coordinates into map information
3 in response to a determination by the processor that the data storage medium is authorized to
4 hold the data.

1 7. The navigation system of claim 4, wherein the geographic data is encrypted.

1 8. The navigation system of claim 1, wherein the data comprises an encrypted
2 portion of a database of geographic data.

1 9. The navigation system of claim 1, wherein the authorization key is encrypted, and
2 wherein the first routine is executable by the processor for decrypting the authorization key and
3 thereby revealing the verification information.

1 10. The navigation system of claim 1, wherein the data storage medium has
2 dimensions and storage capacity conforming with SDA standards.

1 11. The navigation system of claim 1 housed within a handheld unit and being
2 battery-powered.

1 12. The navigation system of claim 1 wherein said first routine uses the verification
2 information to determine the navigation system is authorized to use the data.

1 13. The navigation system of claim 12, wherein said first routine compares the
2 verification information to the identification code of the navigation system.

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1 14. A navigation system comprising, in combination:
2 a processor;
3 a port for coupling with a data storage medium, the data storage medium holding a set of
4 data comprising (i) an encrypted authorization key defining verification information (ii) an
5 encrypted first portion of a geographic database and (ii) an unencrypted second portion of the
6 geographic database, wherein the first portion comprises critical data that enables use of the
7 unencrypted second portion; and
8 a first routine executable by the processor for decrypting the encrypted authorization key,
9 thereby gaining access to the verification information, and using the verification information to
10 validate use of the geographic database.

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1 15. The navigation system of claim 14, wherein the navigation system has a system
2 ID, and wherein using the verification information to validate use of the geographic database
3 comprises comparing at least a portion of the verification information to the system ID to
4 determine whether the navigation system is authorized to access the geographic database.

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1 16. The navigation system of claim 14, wherein the data storage medium has a
2 storage medium ID, and wherein using the verification information to validate use of the
3 geographic database comprises comparing at least a portion of the verification information to the
4 storage medium ID to determine whether the storage medium is authorized to hold the
5 geographic database.

1 17. The navigation system of claim 16, wherein:

2 the first portion of the database is symmetrically encrypted using a symmetric key;

3 the authorization key includes the symmetric key, whereby the first routine is executable

4 by the processor to decrypt the encrypted authorization key and to thereby gain access to the
5 symmetric key; and

6 a second routine executable by the processor in response to validation of use of the
7 geographic database, for using the symmetric key to decrypt the encrypted first portion of the
8 database.

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1 18. An article of manufacture comprising:

2 a medium; and

3 a data product stored on said medium;

4 wherein said data product comprises an encrypted first portion and an unencrypted
5 second portion, wherein said first portion comprises critical data that enables use of the data
6 product including both said first portion and said second portion for an intended purpose.

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1 19. The invention of claim 18, wherein said data product comprises a geographic
2 database.

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1 20. The invention of claim 18, wherein said critical data comprises indices into data
2 contained in said second portion.

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1 21. The invention of claim 18, wherein said critical data comprises global data
2 pertaining to said data product as a whole.

1 22. The invention of claim 18, wherein said medium comprises a flash card.

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1 23. The invention of claim 18, wherein said encrypted first portion includes a first
2 part encrypted using public key encryption and a second part encrypted using symmetric key
3 encryption.

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1 24. The invention of claim 18, wherein a symmetric key for decrypting said second
2 part is contained in encrypted form in said first part.

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1 25. The invention of claim 18, wherein said encrypted first portion includes an
2 authorization key.

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1 26. The invention of claim 25, wherein said authorization key includes a first part
2 encrypted using public key encryption and a second part encrypted using symmetric key
3 encryption.

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1 27. The invention of claim 26, wherein a symmetric key for decrypting said second
2 part of said authorization key is contained in encrypted form in said first part of said
3 authorization key.

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1 28. A portable data storage medium comprising, in combination;
2 a housing;
3 a storage segment within the housing, the storage segment holding a set of information;
4 an interface for coupling the storage segment with a machine;
5 wherein the set of information includes an encrypted authorization key and a set of data;
6 and
7 wherein the encrypted authorization key can be decrypted using of a first decryption key
8 so as to reveal a plaintext authorization key that defines verification information.